

A NEW VARIETY OF *HUMBOLDTIA* (FABACEAE: CAESALPINIOIDEAE) FROM THE
WESTERN GHATS OF INDIA

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ABSTRACT

A new variety ***Humboldtia brunonis*** Wall. var. ***raktapushpa*** P.S. Udayan, K.V. Tushar & Satheesh George is described and illustrated from India.

RESUMEN

Se describe y se ilustra una nueva variedad, ***Humboldtia brunonis*** Wall. var. ***raktapushpa*** P.S. Udayan, K.V. Tushar & Satheesh George de la India.

The genus *Humboldtia* Vahl is known to have six species and one variety (Sanjappa 1986) mostly confined to the Western Ghats of India with one species (*Humboldtia laurifolia* Vahl) extending to Sri Lanka. During the course of floristic exploration along the Western Ghats of Kerala in South India, the authors collected interesting specimens of *H. brunonis* Wall. On closer examination it turned out to be an undescribed taxon which is described here as a new variety.

DESCRIPTION OF THE SPECIES

Humboldtia brunonis Wall. var. ***raktapushpa*** P.S. Udayan, K.V. Tushar & Satheesh George, var. nov. (**Figs. 1–3**). TYPE: INDIA. KERALA. Kozhikode District: Kakkayam, 11° 33' N 75° 55' E ± 750 m elev., 08 Jan 2003 (fl), P.S. Udayan, K.V. Tushar & Satheesh George 01067 (HOLOTYPE: BRIT; ISOTYPES: CAL, CALI, L, MH).

Differt a *H. brunonis* var. *brunonis* inflorescentiae late carmesinus rubra, sepalis erectis, petalis anguste obovatis, staminum filamentis crasso 11 mm longis, staminodiis 3, globosis brevis alternalibus.

Differs from *H. brunonis* var. *brunonis* by its much congested, bright crimson-red inflorescence, erect sepals, narrowly obovate petals; staminal filaments 11 mm long, stout, alternating with 5, short, globose staminodes.

Shrubs to small trees, 4–6 m high and to 40 cm gbh, bark grayish-black, coarsely fissured; branchlets light brown, glabrous solid, sometimes swollen; stipules lanceolate, 2–4 × 0.5–1.5 cm, prominently parallel veined, glabrous; appendages 2, similar, 1 × 0.5 cm, reniform, prominently veined, glabrous, persistent; leaves alternate, pinnately 4-foliolate, subsessile, up to 25 cm long; rachis up to 5.5 cm long, obscurely winged, shallowly canaliculated above, glabrous, young rachis brown tomentose; leaflets bijugate; lamina 8.5–16 × 2.5–5 cm, chartaceous to thinly coriaceous, elliptic-lanceolate, obtusely acuminate at apex, inequilateral at base; lateral veins 6–8 pairs, prominently reticulate below, dark green above and pale beneath, the margins entire, grayish when dry, glabrous, young leaves drooping, coppery brown, brownish pubescent beneath, glabrous above; inflorescence erect, 3–7 cm long, axillary racemes; peduncles 1–3 cm, brown pubescent, up to 50-flowered, floriferous axis up to 6 cm; flowers ca 2 cm long, pedicels 5–7 mm long, pilose, bracts ovate, acute, 3 × 2 mm, with a gland at the middle, light brown pubescent; bracteoles 2, 4 × 3 mm, ovate-obovate, with a gland at the middle, obtuse at apex, with a pinkish midvein, brown pubescent, ciliate along margin; calyx tube ca 1–2 mm long, brownish tomentose; lobes 4, 5 × 3 mm, ovate, concave, imbricate, obtuse at

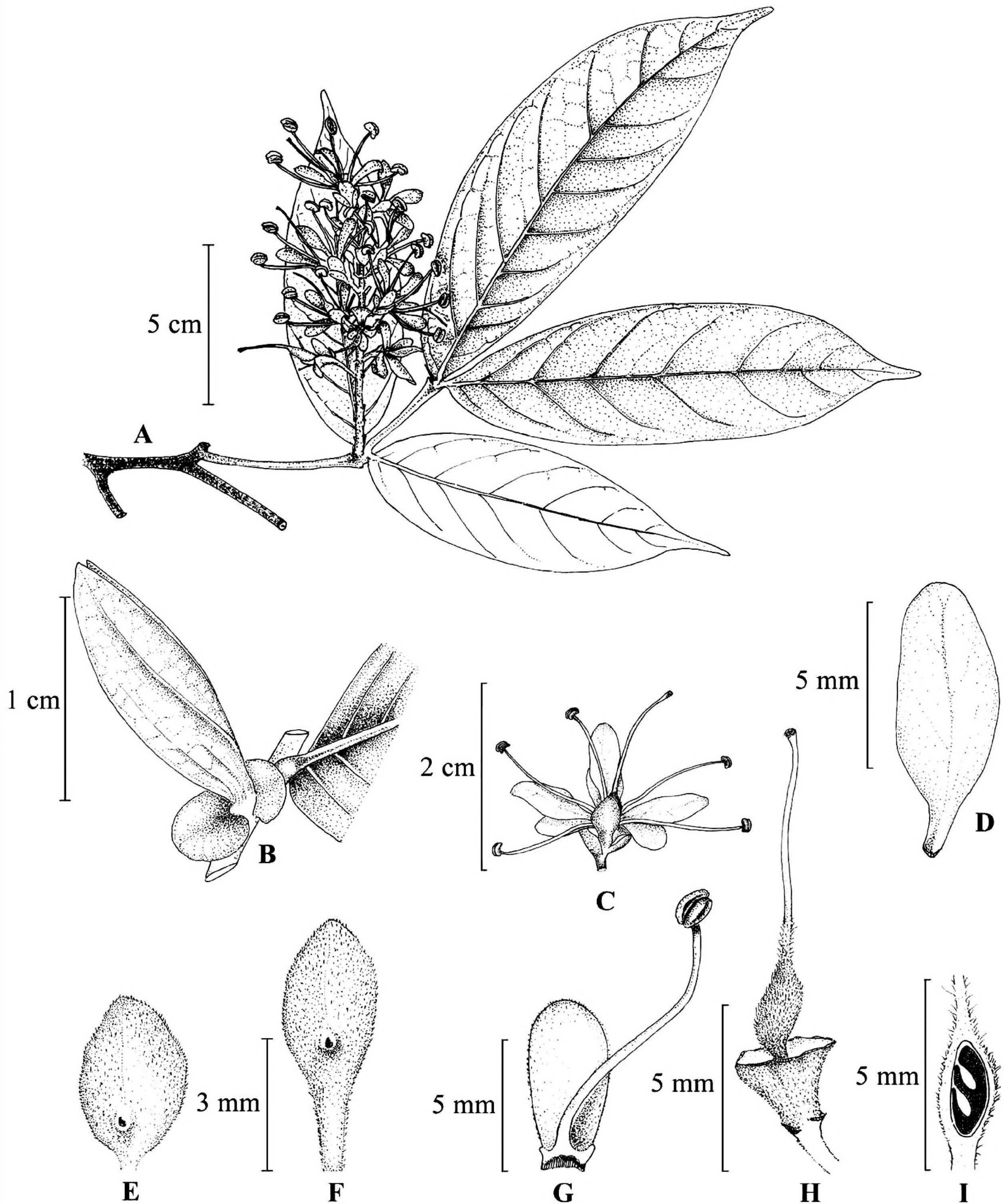


FIG. 1. *Humboldtia burnonis* var. *raktapushpa*. A. Flowering branch. B. A portion of young stem showing stipule. C. Flower. D. Petal. E. Bract. F. Bracteole. G. Sepal with a stamen. H. Pistil. I. Longitudinal section of ovary.

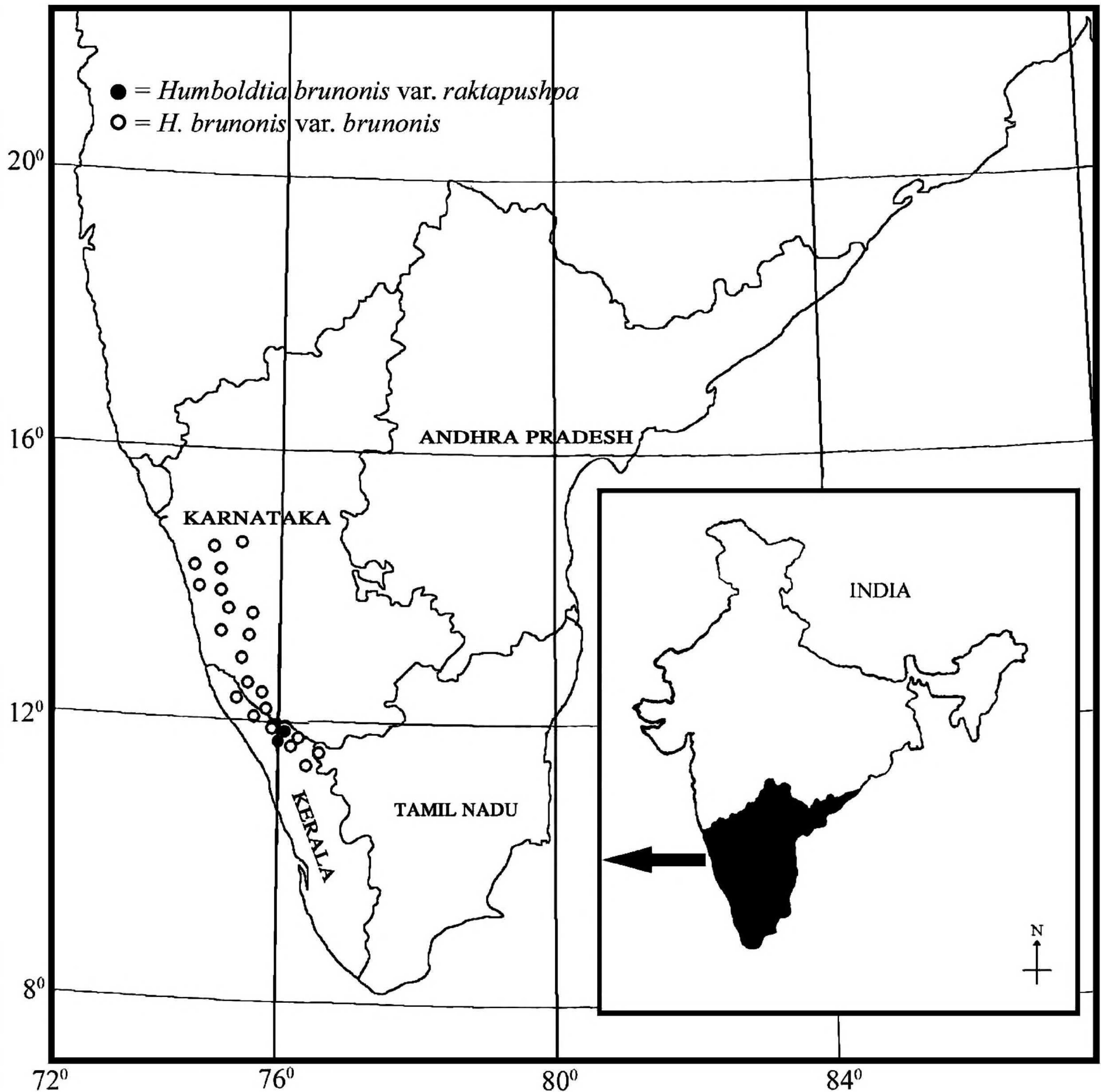


FIG. 2. Distribution of *Humboldtia brunonis* var. *raktapushpa* (= ●) and *H. brunonis* var. *brunonis* (= ○).

tip, brown pubescent, reddish; petals 3, bright crimson-red, obovate, 0.6–0.8 cm long, clawed, claws ca 1.5 mm long, prominently nerved, glabrous; stamens 5, fertile, alternating with 5 short, globose staminodes, the staminal filaments ca 11 mm long, crimson red, stout, glabrous; anthers versatile, 2×1.25 mm, oblong; ovary 5 mm long, stipitate, stipe 2 mm long, obliquely ellipsoid, densely pubescent, 2-ovuled; style 1 cm long, slender, pilose towards base; stigma capitate; pods 3.5–4 \times 1.5–2 cm, dolabriform, brown pubescent when young, 1–2 seeded, 0.5 \times 0.5 cm, brownish.

Distribution, habitat, and phenology.—*Humboldtia brunonis* var. *raktapushpa* is so far known only from the type locality, Kakkayam along the foothills of the Western Ghats of Kerala (Fig. 2). This species grows in the semi-evergreen forests at an elevation of about 750 m in moist shady locations along with tree species such as *Vateria indica* L., *Elaeocarpus tuberculatus* Roxb., *Euodia lunu-ankenda* (Gaertn.) Merr., and *Syzygium laetum* (Buch.-Ham.) Gandhi. Flowering from January to April, and occasionally at other seasons.

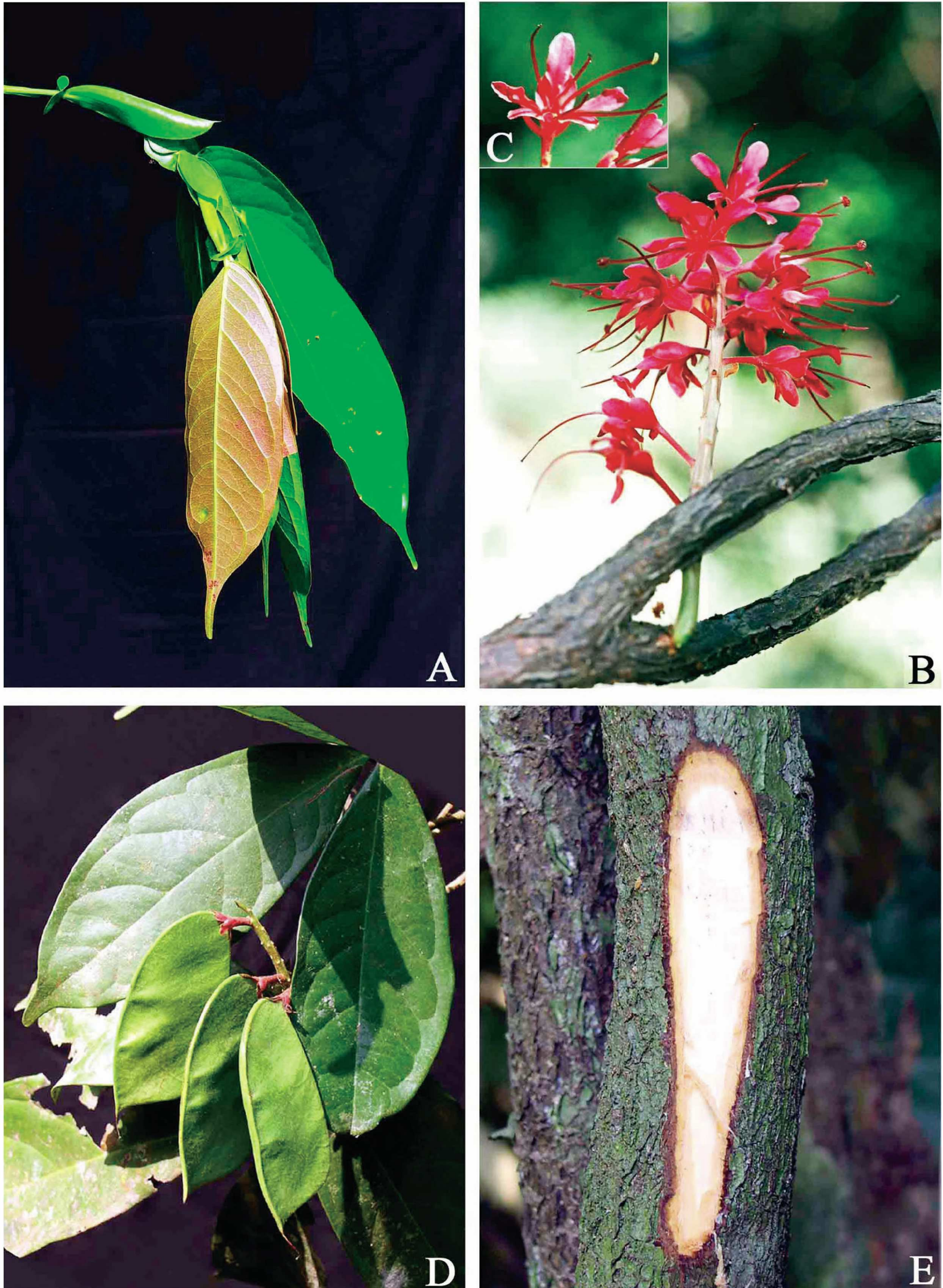


FIG. 3. *Humboldtia brunonis* var. *raktapushpa*. A. Young shoot. B. Inflorescence arising from the stem. C. Single flower. D. Infructescence. E. A portion of the trunk showing bark characters.

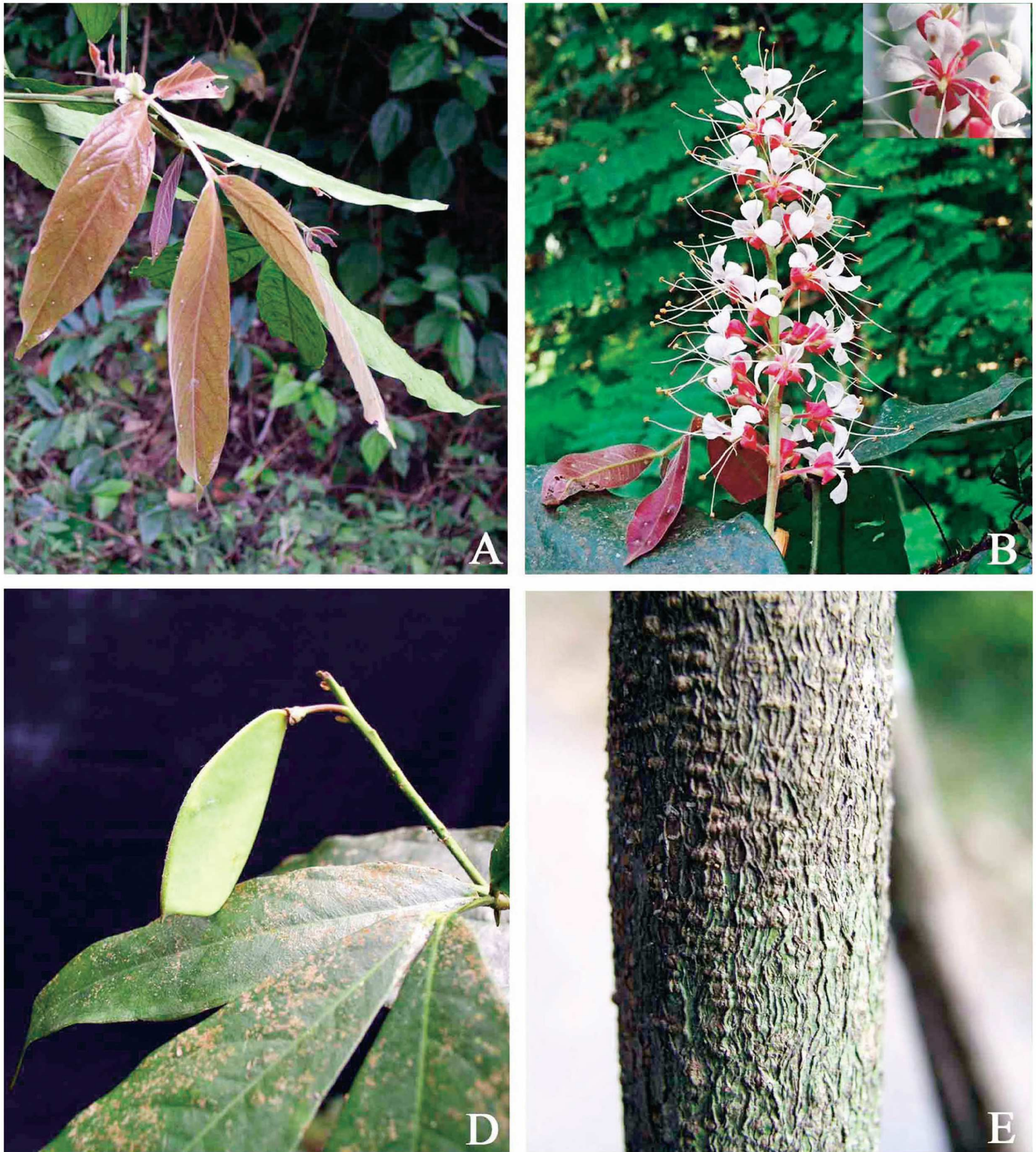


FIG. 4. *Humboldtia brunonis* var. *brunonis*. A. Young shoot. B. Inflorescence. C. Single flower. D. Infructescence. E. A portion of the trunk showing bark characters.

Conservation significance.—Because of the very restricted distribution and no other known collections of this species, a more detailed assessment of its distribution and biology would be valuable.

Etymology.—The varietal name '*raktapushpa*' is derived from the Sanskrit, *rakta* meaning 'red' and '*pushpa*' meaning 'flower' referring to the flower color.

PARATYPE: INDIA. KERALA. KOZHIKODE DIST.: KAKKAYAM, 11° 33' N 75° 55' E ca 780 m, 7 Jan 2005 (fl & fr), P.S. Udayan et al. 03348 (CMPR, MH)

TABLE 1. Comparison of two varieties of *Humboldtia brunonis*.

Characters	var. <i>raktapushpa</i>	var. <i>brunonis</i>
Bark	Coarsely fissured and thinly flaky bark	Not fissured, mottled gray
Inflorescence	Dense, 3–7 cm long	Lax, 10–15 cm long
Flowers	Bright crimson-red	White tinged with pink
Stamens & Staminodes	Filaments stout, crimson red, to 11 mm long; staminodes globose	Filaments slender, white, to 15 mm long; staminodes filiform
Calyx	Tube 1–2 mm long, brownish tomentose	Tube 8–10 mm long, glabrescent
Petals	Narrowly obovate, 6–8 mm long	Broadly obovate, 10–15 mm long
Pod	1 or 2-seeded	3–4-seeded

DISCUSSION

Humboldtia brunonis Wall. var. *raktapushpa* P.S. Udayan, K.V. Tushar & Satheesh George is known only by a small population in the type locality. It resembles the typical form of *H. brunonis* in the vegetative form. The most striking feature of the new variety is the short, bright crimson-red inflorescence with flowers borne in dense spiral clusters. The vegetative feature that distinguishes var. *raktapushpa* is its coarsely fissured and thinly flaky bark (Table 1).

The flower colour of *Humboldtia brunonis* Wall. had been interpreted variously by different authors. Wallich (1832) while describing the flower states “flores magnitudine circiter illorum Tamarindi, coloris forsan laeti aurantiaci Jonesiae...”, from this it appears that he was not sure whether the flowers are slightly orange. However, the excellent plate (t. 233) drawn by Griffith in Wallich’s *Plant Asiatic Rarioris* (1832) accompanying the description undoubtedly agrees with what is currently understood as *H. brunonis* Wall. Brandis (1906) and Gamble (1919) probably following Wallich (1832) also described the flower as ‘orange’. Sanjappa (1986) while revising the genus *Humboldtia* seems to be little confused. He described the flowers of *H. brunonis* as ‘white’ and the petals of which as “white, pink or orange”. We had studied living populations of the typical variety of *H. brunonis* throughout its entire range of distribution and found that the flowers are always white with slight pinkish tinge (Fig. 4). This is in corroboration with the observations made by various other authors (Beddome 1871; Gandhi 1976; Saldanha & Singh 1984; Keshavamurthy & Yoganarasimhan 1990). The reason for this different interpretation could be due to its deep pink sepals. It is likely that many of the collectors mistook the sepals for the petals particularly when the tree is in a late flowering stage with all its petals shed.

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